Title (en)

A THIN FILM SEMICONDUCTOR DEVICE AND METHOD OF MANUFACTURING A THIN FILM SEMICONDUCTOR DEVICE

Title (de)

DÜNNFILM-HALBLEITERBAUELEMENT UND VERFAHREN ZUR HERSTELLUNG EINES DÜNNFILM-HALBLEITERBAUELEMENTS

Title (fr)

DISPOSITIF SEMI-CONDUCTEUR A FILM MINCE ET PROCEDE DE FABRICATION D'UN DISPOSITIF SEMI-CONDUCTEUR A FILM MINCE

Publication

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Application

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Priority

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- ZA 200300849 A 20030130

Abstract (en)

[origin: WO2004068536A2] A thin film semiconductor in the form of a metal semiconductor field effect transistor, includes a substrate 10 of paper sheet material and a number of thin film active inorganic layers that are deposited in layers on the substrate. The active layers are printed using an offset lithography printing process. A first active layer comprises source 12.1 and drain 12.2 conductors of colloidal silver ink, that are printed directly onto the paper substrate. A second active layer is an intrinsic semiconductor layer 14 of colloidal nanocrystalline silicon ink which is printed onto the first layer. A third active layer comprises a metallic conductor 16 of colloidal silver which is printed onto the second layer to form a gate electrode. This invention extends to other thin film semiconductors such as photovoltaic cells and to a method of manufacturing semiconductors.

IPC 8 full level

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